

## ABSTRACT

### A METHOD FOR ENHANCING THE CAPACITY OF A CELLULAR RADIO COMMUNICATION SYSTEM AND CORRESPONDING SYSTEM

5

- The invention relates to a method for enhancing the capacity of a cellular radio-communication system, each cell of which comprising a base station
- 10 and end-users able to communicate with the base station by using a first modulation type over a first communication channel. Any cell experiences an interference level from distant end-users communicating with their corresponding distant base station by using the same first communication channel.
- 15 According to the invention, the end-users located in at least one domain of the cell in which the interference level is lower than a predefined interference level communicate with the base station by using a second modulation type over a second communication channel, where the second modulation type has a higher efficiency than said first modulation type. The
- 20 size and location of the domains depend on the antenna directivity of the end-users and on the relative positions of the distant base stations and the base station.

Fig. 1

25